

REMARKS:

- 1) In accordance with the PCT procedures, the original specification of this application was based on a direct translation of the foreign language text of the corresponding PCT International Application.

It has been discovered that a clarification of that translation is appropriate, to use better art-recognized terminology. The text of PCT International Application PCT/DE2004/002194 at page 5, in the last 5 lines, refers to diffusing the platinum into the substrate surface by a "Schlickertechnik", for which a "Platin-Schlickerwerkstoff" is applied onto the surface of the substrate and thereafter is age hardened. The German terms "Schlickertechnik" and "Platin-Schlickerwerkstoff" were originally translated as "drossing technique" and "platinum drossing material" in the translation filed with the National Phase entry papers on April 28, 2006. However, after further study of the applicable technology and terminology, it has been discovered that these terms are more aptly translated as a "slurry coating technique" using a "platinum slurry material". For example, see paragraph 0004 of the reference EP 1,094,131 (Rickerby et al.), which refers to other metal slurry coating processes. Accordingly the specification is now being amended to use the more-appropriate art-recognized terminology.

The undersigned attorney, as the translator of the specification text, hereby solemnly declares that I am fully conversant and knowledgeable in the German language to fluently

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read, write, and speak it; that I am also fully conversant and knowledgeable in the English language; that I have, to the best of my ability, prepared the accurate, complete and literal translation of the German language text of PCT International Application PCT/DE2004/002194, as filed herein on April 28, 2006 and as revised and improved by the present amendment; that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

The entire disclosure of the PCT International Application PCT/DE2004/002194 was incorporated into this US National Phase Application by reference (see the fourth and fifth lines from the bottom of page 1 of the "Transmittal Letter to the United States Designated/Elected Office Concerning a Filing Under 35 USC 371" filed on April 28, 2006). Also, this application is a US National Phase directly based on the PCT International Application. Therefore, merely correcting or improving the English Translation of the PCT Application text does not introduce any new matter.

Entry of the specification amendments is respectfully requested.

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- 2) The claims have been amended as follows.

Independent claim 40 has been amended to incorporate the subject matter of prior claim 41. Claim 40 has also been amended editorially for clarification and simplification of the definition of the terms "integration depth range", "minimum integration depth" and "maximum integration depth", without any change of the intended meaning.

Prior claims 41, 45 and 60 have been canceled.

Dependent claims have been amended as necessary for proper dependence in view of the cancellation of some claims, and for proper conformance with the amended independent claims.

Independent claim 55 has been amended editorially for clarification and simplification without any change of the intended meaning.

Independent claim 56 has been amended to incorporate the subject matter of prior claim 60.

New independent claim 62 has been added, based on a combination of prior claims 40 and 45.

Because these amendments merely involve claim combinations and editorial clarifications without any change of meaning or scope, these amendments do not introduce any new matter. Entry and consideration of the claim amendments and the new claim are respectfully requested.

- 3) Referring to pages 2 to 5 of the Office Action, the rejection of claims 40 to 61 for lack of enablement under 35 USC 112(1) is respectfully traversed.

The Examiner has asserted that "*the specification in no way discloses how the article is actually made*". That assertion is respectfully traversed as factually and legally inaccurate.

The application actually describes that the inventive product can be produced by a platinum diffusion process of applying and diffusing platinum into the surface of a substrate, and avoids the need for a separate aluminizing or alitizing process after the platinum diffusion step (page 3 lines 6 to 11). Preferably, exclusively platinum is diffused into the substrate surface (page 3 lines 12 to 15 and page 4 line 18 to page 5 line 24). Particularly, it is further described that the inventive product is formed by providing a component with a substrate surface having a substrate composition based on nickel with an aluminum content of at least 4.5 weight percent, and then diffusing exclusively at least one metal of the platinum group into the substrate surface (see page 7 lines 8 to 18). This diffusion of platinum into the substrate surface is carried out preferably by a slurry coating technique in which a platinum slurry material is applied onto the surface of the substrate and thereafter is age hardened (see page 7 lines 18 to 22).

A person of ordinary skill in the art generally understands how to carry out such a diffusion step, and the necessary process parameters (e.g. diffusion temperature and duration) for achieving the disclosed inventive product features can be determined by experiment once the inventive disclosures of the present application are considered in combination with the known state of the art. The important factor according to the invention is that the diffusion is carried out sufficiently long

and at such a temperature so as to achieve the platinum distribution as recited in the present claims.

It is further noted that the rejected claims themselves (i.e. claims 56 to 61) are directed to a method of producing a metallic article by carrying out method steps as outlined above. Still further, the Examiner has rejected the product claims and the method claims based on the teachings of EP 1,094,131 (Rickerby et al.) and US 6,066,405 (Schaeffer). These two prior art references demonstrate that a person of ordinary skill in the art generally knows how to carry out various diffusion methods for diffusing platinum into a surface region of a base component (for example see paragraphs 0004, 0020, 0037 to 0040 of Rickerby et al., as well as col. 2 lines 32 to 48 and col. 4 lines 34 to 45 of Schaeffer). It is also significant that the focus of the disclosures of Rickerby et al. and Schaeffer (just like that of the present application), is the resulting product features of the platinum-containing surface region that is produced.

Thus, a person of ordinary skill in the art, with knowledge of Rickerby et al. and Schaeffer, after additionally reading the present application, would also have been enabled to carry out a method of producing the claimed inventive product according to the claimed inventive method. The prior art references show that a person of ordinary skill was generally able to carry out various controlled platinum diffusion techniques. What the prior art references do not teach or suggest are the particular details recited in at least claims 41 to 45, 55 and 60 as identified by the Examiner. However, those details are disclosed in the

present application, and would have enabled a person of ordinary skill in the art to carry out the invention including such details as an improvement and advancement over the known techniques and resulting products of the prior art.

A patent application does not need to explain basic fabrication method steps that are already generally known to persons of ordinary skill in the art, for example such methods as disclosed by the Rickerby reference or the Schaeffer reference. Instead, a patent application only needs to sufficiently disclose the inventive improvements or advancements over the existing state of the art, so as to enable a person of ordinary skill to achieve the inventive improvements or advancements in connection with the state of the art represented by the references.

For the above reasons, it is respectfully submitted that the present application would have enabled a person of ordinary skill in the art to practice the inventive features as now claimed, and the Examiner is respectfully requested to withdraw the non-enablement rejection under 35 USC 112(1).

- 4) Referring to page 13 of the Office Action, the indication of allowable subject matter in prior claims 41 to 45, 55 and 60 is appreciated. Allowable subject matter has been incorporated into the remaining independent claims as follows.

Independent claim 40 has been amended to incorporate the indicated allowable subject matter of prior claim 41. Therefore, claim 40 and its dependent claims 42 to 44 and 46 to 54 should

now be allowable. The non-enablement rejection under 35 USC 112(1) is overcome for the reasons discussed above.

Independent claim 55 has been amended editorially without changing the meaning or scope thereof. Therefore, in view of the indicated allowable subject matter, claim 55 should now be allowable. The non-enablement rejection under 35 USC 112(1) is overcome for the reasons discussed above.

Independent claim 56 has been amended to incorporate the indicated allowable subject matter of prior claim 60. Therefore, claim 56 and its dependent claims 57 to 59 and 61 should now be allowable. The non-enablement rejection under 35 USC 112(1) is overcome for the reasons discussed above.

New independent claim 62 is based on a combination of prior claim 40 and the indicated allowable subject matter of prior claim 45. Therefore, new independent claim 62 should now be allowable. The non-enablement rejection under 35 USC 112(1) is overcome for the reasons discussed above.

- 5) In the remarks in the Office Action, it appears that several of the claims may have been misinterpreted regarding the platinum distribution in the surface region over the integration depth range. Thus, the intended meaning has been clarified by the present amendments. For example, claim 40 has been amended to make clear that the integrated proportion of the platinum over an integration depth range is from 5 to 30 weight percent of an overall composition of the integration depth range. This integration depth range is defined as extending from a minimum integration depth to a maximum integration depth. The minimum

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integration depth is from 0 to 5  $\mu\text{m}$  into the substrate from the substrate surface, and the maximum integration depth is a depth (from the surface) at which a local content percentage of the platinum has diminished to 5 weight percent. So, it must be clearly understood that the integration depth range starts at 0 to 5  $\mu\text{m}$  into the substrate from the surface, and ends at a depth at which the local content percentage of the platinum has diminished to 5 weight percent. This is further clearly understood from the original specification at page 6 line 1 to page 7 line 7.

- 6) Referring to pages 6 to 13 of the Office Action, the prior art rejections of claims 40, 46 to 54, 56 to 59 and 61 have been obviated by the present amendments. Namely, all of the remaining independent claims 40, 55, 56 and 62 incorporate allowable subject matter from non-rejected prior claims, as discussed above. Therefore, the prior art rejections cannot apply against any of the present independent claims or the claims depending therefrom. Therefore, the Examiner is respectfully requested to withdraw the prior art rejections.

[RESPONSE CONTINUES ON NEXT PAGE]



- 7) Favorable reconsideration and allowance of the application, including all present claims 40, 42 to 44, 46 to 59, 61 and 62, are respectfully requested.

Respectfully submitted,

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Enclosures:  
Transmittal Cover Sheet  
Term Extension Request  
Form PTO-2038

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CERTIFICATE OF FAX TRANSMISSION:

I hereby certify that this correspondence with all indicated enclosures is being transmitted by telefax to (571) 273-8300 on the date indicated below, and is addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

Walter F. Fasse 6/23/09  
Name: Walter F. Fasse - Date: June 23, 2009